IBM BladeCenter S 12-Disk Storage Module option which enables higher performance required by segment of BladeCenter S clients

At a glance

Large enterprises and small businesses depend on their IT systems to provide the high performance, availability, and resiliency clients and partners demand. Yet to stay competitive, organizations must find an economical way to simplify and efficiently manage evolving technology requirements. Small and midsized businesses in particular are pressured to do more with less space, fewer IT resources, and tighter budgets.

IBM® BladeCenter® S delivers the industry's first blade chassis uniquely designed for small, midsized, and distributed environments. Building in simplicity and economy, BladeCenter S is designed to get big IT results from the smallest IT staffs.

Small enough to sit under a desk, the new BladeCenter S chassis is designed to make it easy and cost-effective for small and midsized businesses to obtain IT results at levels traditionally reserved for large enterprises. With six blade servers, and a fully integrated Storage Area Network (SAN), the chassis simply plugs into an average wall socket, helping eliminate the need to own and operate costly data centers.

Highlights:

- Contains all necessary components. Integrates servers, SAN storage, networking, and I/O into a single chassis.
- Requires no special wiring. Uses standard office power plugs supporting 100 - 240 V.
- Features flexible modular technology Integrates a family of IBM blade servers supporting a wide range of operating systems and applications.
- Is designed to be easy to deploy, use, and manage.
- Helps build greener IT infrastructures. IBM Cool Blue® technology delivers a portfolio of tools that helps plan, manage, and control power and cooling.
- Is available in the Office Enablement Kit. This kit is the ideal way to deploy BladeCenter S into the everyday office environment.

Overview

The IBM BladeCenter S 12-Disk Storage Module provides a fully integrated, shared storage solution for an IBM BladeCenter S Chassis with up to twelve 2.5-inch SAS HDDs.

Key features:
- Storage space for up to 12 small form factor (SFF) SAS drives
- Support for RAID-0, RAID-1, RAID-5, and RAID-10
- Scale from one unit to two units as with support for up to 24 small form factor (SFF) SAS drives
- Support for 300 GB 15,000 rpm SAS drives
- Support for 300 GB, 600 GB, and 900 GB 10,000 rpm SAS drives

**Note:** Combining a 6-Disk Storage Module and a 12-Disk Disk Storage Module in the same BladeCenter S Chassis is not supported at this time.

**Feature exchange**
None

**Key prerequisites**

For prerequisites, see the IBM BladeCenter ServerProven® Plan


**Planned availability date**

July 26, 2013

**Description**

**IBM BladeCenter S 12-Disk Storage Module (49Y3234)**

**Note:** Combining a 6-Disk Storage Module and a 12-Disk Disk Storage Module in the same BladeCenter S Chassis is not supported at this time.

**Product positioning**

This higher-performance 12-disk storage module option is positioned to support BladeCenter S clients that require higher-performance disk capacity.

This disk module supports up to twelve 2.5-inch SFF SAS drives and can support 300 GB 15,000 rpm SAS drives and 300 GB, 600 GB, and 900 GB 10,000 rpm SAS drives.

This 12-disk storage module supports BladeCenter S server and workstation applications, such as:

- Transaction processing
- Data mining
- Data warehousing
- Professional video and graphics
Product number

The following are features already announced for the 3331 machine type:

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
<th>Model</th>
<th>Feature</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM BladeCenter S 12-Disk Storage</td>
<td>3331</td>
<td>HC1</td>
<td>A3KS</td>
<td>49Y3234</td>
</tr>
</tbody>
</table>

The following are features already announced for the 3331, 8886 machine type:

<table>
<thead>
<tr>
<th>Description</th>
<th>MT</th>
<th>Model</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM 900GB 10K 6Gbps SAS 2.5&quot; SFF HS HDD</td>
<td>8886</td>
<td>AC1</td>
<td>A282</td>
</tr>
<tr>
<td>IBM 300GB 15K 6Gbps SAS 2.5&quot; SFF HS HDD</td>
<td>8886</td>
<td>AC1</td>
<td>A283</td>
</tr>
<tr>
<td>IBM 600GB 10K 6Gbps SAS 2.5&quot; SFF G2HS HDD</td>
<td>8886</td>
<td>AC1</td>
<td>A2XC</td>
</tr>
<tr>
<td>IBM BladeCenter S 12-Disk Storage Module</td>
<td>3331</td>
<td>HC1</td>
<td>A3KS</td>
</tr>
<tr>
<td>IBM BladeCenter S 12-Disk Storage Module</td>
<td>8886</td>
<td>AC1</td>
<td>A4CH</td>
</tr>
</tbody>
</table>

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld® ID and password are required (use IBM ID).


Publications

Publications are shipped with the announced product.

An installation guide, safety and warranty publications are shipped with each 12-disk storage module. Operating and procedures are explained in the 12-disk storage module user guide included with the product.

Services

Global Technology Services®

IBM services include business consulting, outsourcing, hosting services, applications, and other technology management.

These services help you learn about, plan, install, manage, or optimize your IT infrastructure to be an on-demand business. They can help you integrate your high-speed networks, storage systems, application servers, wireless protocols, and an array of platforms, middleware, and communications software for IBM and many non-IBM offerings. IBM is your one-stop shop for IT support needs.

For details on available services, contact your IBM representative or visit

http://www.ibm.com/services/

For details on available IBM Business Continuity and Recovery Services, contact your IBM representative or visit

http://www.ibm.com/services/continuity
For details on education offerings related to specific products, visit
Select your country, and then select the product as the category.

Technical information

Specified operating environment

**Physical specifications**
- Width: 258.93 mm (10.19 in.)
- Depth: 451.36 mm (17.77 in.)
- Height: 90.9 mm (3.58 in.)
- Weight: 4.36 kg (9.61 lb.) minimum configuration with 0 hard drives
- Weight: 7.48 kg (16.49 lb.) maximum configuration with 12 hard drives

**Electrical**

Input 12V DC
- Minimum configuration (0 hard drive): 30 W
- Maximum configuration (12 hard drive): 135 W

**Equipment approvals and safety:**
- FCC - Verified to comply with Part 15 of the FCC Rules, Class A
- Canada ICES-003, issue 4, Class A
- UL/IEC 60950-1
- CAN C22.2 No. 60950-1-03
- NOM-019

These servers are certified by the respective UL and NOM agencies.

**Operating environment**
- Temperature:
  - 10.0 to 35.0 degrees C (50 to 95 degrees F) at 0 to 914 m (0 to 3,000 ft)
  - 10.0 to 32.0 degrees C (50 to 90 degrees F) at 914 to 2,133 m (3,000 to 7,000 ft)
- Relative humidity: 8% to 80%
- Maximum altitude: 2,133 m (7,000 ft)

**Hardware requirements**

Combining a 6-Disk Storage Module and a 12-Disk Disk Storage Module in the same BladeCenter S Chassis is not supported at this time.

**Compatibility**

12-Disk Storage Module for IBM BladeCenter S supports:
- 2.5-inch 300 GB 10,000 rpm HS SAS HDD.
- 2.5-inch 600 GB 10,000 rpm HS SAS HDD.
- 2.5-inch 900 GB 10,000 rpm HS SAS HDD.
- 2.5-inch 300 GB 15,000 rpm HS SAS HDD.
- BladeCenter S (7779/8886) chassis.
• BladeCenter HX5 (7873), HS12 (8028), HS22 (7870), HS22V (7871), HS23 (7875) and HS23E (8038) blades.
• IBM BladeCenter RAID SAS Switch Module (43W3584).

Limitations

• IBM Storage Configuration Manager (SCM).
• No support for SATA or SED drives.

Planning information

Cable orders

None

Packaging

IBM BladeCenter S 12-Disk Storage Module

<table>
<thead>
<tr>
<th>Product</th>
<th>Package description</th>
<th>Boxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM BladeCenter S 12-Disk Storage Module</td>
<td>Option Unit Box</td>
<td>1</td>
</tr>
</tbody>
</table>

Contents:

- Storage module
- Installation pub and warranty
- Safety flyer

The DSM is shipped as a single package. Other items are in zipped bags.

Security, auditability, and control

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

Terms and conditions

Warranty period

One year.

An IBM part or feature installed during the initial installation of an IBM machine is subject to a full warranty effective on the date of installation of the machine. An IBM part or feature which replaces a previously installed part or feature assumes the remainder of the warranty period for the replaced part or feature. An IBM part or feature added to a machine without replacing a previously installed part or feature is subject to a full warranty effective on its date of installation. Unless specified otherwise, the warranty period, type of warranty service and service level of a part or feature is the same as the machine it is installed in.

IBM hourly service rate classification

One

Customer setup

Yes
**Machine code**

No. All other terms and conditions are the same as those applicable to the IBM machine type in which the feature is installed.

**Prices**

For current prices, contact IBM at 888-Shop-IBM (746-7426) or visit [http://www-03.ibm.com/systems/x/](http://www-03.ibm.com/systems/x/)

To locate the web price, search on the feature number in the Search field.

The following are features already announced for the 3331 machine type:

<table>
<thead>
<tr>
<th>Description</th>
<th>Model</th>
<th>Feature</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM BladeCenter S 12-Disk Storage Module</td>
<td>HC1</td>
<td>A3KS</td>
<td>MES</td>
</tr>
<tr>
<td>Battery</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following are features already announced for the 3331 machine type:

<table>
<thead>
<tr>
<th>Description</th>
<th>Model</th>
<th>Feature</th>
<th>Both/Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM BladeCenter S 12-Disk Storage Module</td>
<td>HC1</td>
<td>A3KS</td>
<td>MES</td>
</tr>
</tbody>
</table>

The following are features already announced for the 8886 machine type:

<table>
<thead>
<tr>
<th>Description</th>
<th>Model</th>
<th>Feature</th>
<th>Both/Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM 900GB 10K 6Gbps SAS 2.5&quot; SFF HS HDD</td>
<td>AC1</td>
<td>A282</td>
<td>Initial</td>
</tr>
<tr>
<td>IBM 300GB 15K 6Gbps SAS 2.5&quot; SFF HS HDD</td>
<td>AC1</td>
<td>A283</td>
<td>Initial</td>
</tr>
<tr>
<td>IBM 300GB 10K 6Gbps SAS 2.5&quot; SFF G2HS HDD</td>
<td>AC1</td>
<td>A2XC</td>
<td>Initial</td>
</tr>
<tr>
<td>IBM 600GB 10K 6Gbps SAS 2.5&quot; SFF G2HS HDD</td>
<td>AC1</td>
<td>A2XD</td>
<td>Initial</td>
</tr>
<tr>
<td>IBM BladeCenter S 12-Disk Storage Module</td>
<td>AC1</td>
<td>A3KS</td>
<td>Initial</td>
</tr>
<tr>
<td>2.5&quot; Gen2 HS HDD Filler</td>
<td>AC1</td>
<td>A4CH</td>
<td>Initial</td>
</tr>
</tbody>
</table>

**Option SEOs**

<table>
<thead>
<tr>
<th>Description</th>
<th>SE0</th>
<th>Both/Support CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM BladeCenter S 12-Disk Storage Module</td>
<td>49Y3234</td>
<td>Both    Yes</td>
</tr>
</tbody>
</table>


**Trademarks**

IBM, BladeCenter, Cool Blue, ServerProven and PartnerWorld are registered trademarks of IBM Corporation in the United States, other countries, or both.

Other company, product, and service names may be trademarks or service marks of others.

**Terms of use**

IBM products and services which are announced and available in your country can be ordered under the applicable standard agreements, terms, conditions, and prices in effect at the time. IBM reserves the right to modify or withdraw this announcement at any time without notice. This announcement is provided for your information only. Additional terms of use are located at


For the most current information regarding IBM products, consult your IBM representative or reseller, or visit the IBM worldwide contacts page